

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING

To:

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Seoul 137-874, Republic of KOREA

PCT

WRITTEN OPINION

(PCT Rule 66)

Date of mailing
(day/month/year) 23 FEBRUARY 2006 (23.02.2006)

Applicant's or agent's file reference
JL-21062-PCT

REPLY DUE within 1/2 months from
the above date of mailing

International application No.

PCT/KR2003/002553

International filing date (day/month/year)

25 NOVEMBER 2003 (25.11.2003)

Priority date(day/month/year)

International Patent Classification (IPC) or both national classification and IPC

C07D 339/04(2006.01)i

Applicant

CJ CORPORATION et al

1. This written opinion is the _____ (first,etc.) drawn by this International Preliminary Examining Authority.

2. This opinion contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

3. The applicant is hereby invited to reply to this opinion.

When ? See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d)

How ? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3
For the form and the language of the amendments, see Rules 66.8 and 66.9

Also For an additional opportunity to submit amendments, see Rule 66.4
For an examiner's obligation to consider amendments and/or arguments, see Rule 66.4bis
For an informal communication with the examiner, see Rule 66.6

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 15 MARCH 2006 (15.03.2006)

Name and mailing address of the IPEA/KR



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Republic of Korea

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WRITTEN OPINION

International application No.

PCT/KR2003/002553

I. Basis of the opinion

1. With regard to the elements of the international application:*

- ☒ the international application as originally filed
- ☐ the description:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the claims:
 pages _____, as originally filed
 pages _____, as amended (together with any statement) under Article 19
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the drawings:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language English which is

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☒ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the written opinion was drawn on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheet/fig _____

5. ☐ This opinion has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed."

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WRITTEN OPINION

International application No.

PCT/KR2003/002553

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V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	4-7	YES
	Claims	1-3, 8	NO
Inventive step (IS)	Claims	4-7	YES
	Claims	1-3, 8	NO
Industrial applicability (IA)	Claims	1-8	YES
	Claims		NO

2. Citations and explanations

본원발명의 특허청구범위 제1항 내지 제3항, 제8항은 화학식 1로 표시되는 티온 유도체 또는 그의 무독성 염, 이러한 화합물을 유효성분으로 함유하는 해열, 진통, 소염 효과를 갖는 약제학적 조성물을 청구하고 있으나, 본원발명의 출원일 이전에 반포된 간행물인 약제학회지(2003, 제33권 제2호, 제105면 내지 제112면, 2003. 6. 21. 발행, 이하 '비교대상발명'이라 한다)에 본원발명의 화학식 1에 포함되는 화합물인 4-(4-브로모페닐)-5-(4-메탄술폰닐페닐)-[1,2]디티올-3-티온(실시예 40), 5-(4-메탄술폰닐페닐)-4-토랄-[1,2]디티올-3-티온(실시예 41), 5-(4-메탄술폰닐페닐)-4-메톡시페닐-[1,2]디티올-3-티온(실시예 43), 5-(4-메탄술폰닐페닐)-4-(2-트리플루오로메틸페닐)-[1,2]디티올-3-티온(실시예 44), 4-(4-클로로페닐)-5-(4-메탄술폰닐페닐)-[1,2]디티올-3-티온(실시예 45), 4-(3,4-디클로로페닐)-5-(4-메탄술폰닐페닐)-[1,2]디티올-3-티온(실시예 46), 5-(4-메탄술폰닐페닐)-4-(2-니트로페닐)-[1,2]디티올-3-티온(실시예 54), 4-(2,4-디클로로페닐)-5-(4-메탄술폰닐페닐)-[1,2]디티올-3-티온(실시예 58), 4-(2-플루오로페닐)-5-(4-메탄술폰닐페닐)-[1,2]디티올-3-티온(실시예 62), 4-(2,4-디플루오로페닐)-5-(4-메탄술폰닐페닐)-[1,2]디티올-3-티온(실시예 63), 4-(3,4-디플루오로페닐)-5-(4-메탄술폰닐페닐)-[1,2]디티올-3-티온(실시예 64)이 화합물 97(제109면) Table II) 등으로 기재되어 있으며, COX-2 저해제로서 항염증 효과가 있음이 공지되어 있는바 이러한 화합물은 비교대상발명의 화합물과 동일한 화합물이고 용도 역시 동일한 용도를 청구하는 것으로서 상기 청구항들은 특허법 제29조제1항제2호의 규정에 해당되어 특허받을 수 없으며, 이러한 화합물 이외의 화합물은 비교대상발명의 화합물과 모핵이 동일하고 단지 치환기에 미차가 있으나 이러한 차이는 당업자라면 용이하게 변경할 수 있는 정도라 인정되고, 또한 그 치환기의 차이로 인하여 본원발명의 화합물이 비교대상발명의 화합물에 비해 현저한 효과를 나타내는 것으로 인정되지 아니하고 그 용도 역시 당업자가 비교대상발명으로부터 쉽게 생각할 수 있는 정도로 인정되므로 상기 청구항들은 본원발명이 속하는 기술분야에서 통상의 지식을 가진 자가 비교대상발명으로부터 용이하게 발명할 수 있는 것으로서 특허법 제29조제2항의 규정에 해당되어 특허받을 수 없습니다. 끝.